

Athylax, *Calogale*, *Ichneumia*, *Bdeogale*, *Urva*,
Tæniogale, *Onychogale*, *Helogale*, *Rhinogale*, *Mungos*,
Crossarchus, *Eupleres*.

CYNICTIDÆ: *Cynictis*, ? *Ictitherium*.

SURICATIDÆ: *Suricata*. Ethiopia.

CRYPTOPROCTIDÆ: *Proaelurus*, *Cryptoprocta*.

NIMRAVIDÆ: *Archaelurus*, *Nimravus*, *Ælurogale*, *Di-*
nictis, *Pogonodon*, *Hoplophoneus*.

FELIDÆ: *Machærodontinæ*—*Machærodus*, *Smilodon* ;
Felinæ—*Plethælorus* (g. n.)*, *Catolynx*, *Felis*, *Neo-*
felis, *Uncia* †, *Lynx*, *Cynælorus*.

HYÆNIDÆ: *Hycænictis*, *Hycæna*, *Crocota*.

XVI.—*Notes on the Mollusca in the Great International Fisheries Exhibition, London, 1883, with the Description of a new Species of Pleurotoma.* By J. GWYN JEFFREYS, LL.D., F.R.S.

THE interest taken by the public in this great world's show continues unabated. But it does not seem to have attracted the attention of conchologists; although the contrary might have been expected, seeing that many of our rarest shells have been procured from the stomachs of fishes and even been caught by the bait intended for the latter.

Apart from the economic or food-supplying object of the Exhibition, there is not much of science or natural history in the department of Mollusca. Oysters, of course, play a considerable and aristocratic part in it, and are amply displayed. Not so with mussels, cockles, whelks, periwinkles, and other "small deer," which are so relished by the poorer classes in the dog days.

The Mollusca are well known to constitute, together with Crustacea, Annelids, and various other invertebrate animals, the principal food of most fishes. I have myself seen between thirty and forty specimens of the common whelk (*Buccinum undatum*) taken from the stomach of a single cod. Örsted says, in his interesting treatise 'De regionibus marinis,'

* Type *Felis planiceps*, Vig. Horsf. Char. Second (first) superior pre-molar two-rooted; orbit closed behind; pupil round.

† Mr. Wortman has called my attention to a character of this genus which confirms its separation from *Felis*, as I proposed in 1879. The maxilloturbinal bone is less complex in the genus *Uncia* than in *Felis*, consistently with a less nocturnal habit and less necessity for acute smell.

that great numbers of *B. undatum* and *Fusus antiquus* are collected in the Cattegat for fish-bait, by putting a dead cod into a wicker basket and letting it down on a muddy bottom; it is soon taken up half filled with whelks. The same method is adopted for their capture on the English and Irish coasts. This is a good illustration of the *lex talionis*. The Romans must have prized the whelk as a foreign luxury during their occupation of this country. Shells of *B. undatum*, mixed with those of the oyster, were found among the ruins of the Roman station at Richborough. Whelks of two kinds ("white" and "almond") are in great request and sold by millions in the lower fishmarket at Billingsgate.

The Exhibition presents some absurd incongruities. Allowing every latitude to the interpretation of the word "fisheries," it appears rather strange to include among their products a large assortment of copper-ore and other minerals from Newfoundland, and cases of Lepidoptera from the Entomological Society of Canada; nor can we quite see the connection between fishes and Algæ or seaweeds, which are so profusely exposed to view in the courts of the United States of America, Italy, Norway, Russia, and other foreign countries.

However, instead of indulging in useless criticism, I will proceed to make some remarks on the Mollusca in the Exhibition, considered in a natural-history point of view; and I will take the courts according to their order in the catalogue. In doing this I shall be glad to express my obligation to the Colonial and Foreign Commissioners for their extremely courteous attention and for allowing me to examine all the Mollusca in their departments.

GREAT BRITAIN.

Nothing worthy of notice.

BAHAMAS.

A collection of small and common shells without names.

BRITISH COLUMBIA.

A magnificent specimen (in spirit) of *Cryptochiton Stelleri*, Middendorff. The only other habitats previously known for this singular mollusk were the Siberian coast and Sitka.

CANADA.

This is not in the official Catalogue, except to give the names of the Commissioners. The court contains a well-

arranged and interesting collection of eatable Mollusca. The word "eatable" puts me in mind of my old friend Edward Forbes. When he went to Shetland he dredged in Lerwick Bay the large and now well-known Holothuroid *Cucumaria frondosa*, which resembles a pudding. He called it a "comestible;" and his boatman Peter, who was quite a character, afterwards took me with my dredge to the same spot, and was very proud of telling me the right name, which he had improved into "combustible!"

NEWFOUNDLAND.

Also omitted in the Catalogue. Mr. T. A. Verkrüzen supplied a case of marine shells, arranged with his usual care and neatness. *Buccinum undatum*, *grœnlandicum*, *tenuë*, and *Totteni* are represented by several varieties under not a few specific names.

UNITED STATES OF AMERICA.

An extensive and admirably displayed collection of the shells of *Ostrea virginica* or the American oyster. This species may always be known by the purplish or dark violet colour of the muscular scar. Its variability in shape and size is not less than that of its European congener, *O. edulis*. In this section is to be seen an excellent model of the gigantic squid (*Architeuthis Harveyi*?) of Prof. Verrill; but unfortunately its extraordinary length has been somewhat curtailed by the clumsiness of a carpenter who set it up and fastened the arms or tentacles in such a manner that justice has not been done to the model. Here are also shown a model of the new exploring-ship or Fish-commissioners' steamer 'Albatross,' as well as sundry apparatus, such as improved kinds of trawl, dredge, accumulator, Sligsbee's net for intermediate depths, and many other ingenious contrivances.

FRANCE.

Oysters only.

HAITI.

Common tropical shells without names.

ITALY.

A miscellaneous lot of small unnamed shells from Naples, mixed with exotic *Nerite*. Attached to the native corals, of which there is a large assortment, may be observed valves of *Ostrea cochlear*, showing how they had become altered in

shape by the conditions of their peculiar habitat. I more than suspect that this so-called species of oyster is merely a variety of *O. edulis*, which was necessarily moulded on the branching coral, and therefore grew in the form of a bowl or cup. A large tropical *Bulinus* and a specimen of *Helix pomatia* are perched on a madrepora, as if in their usual association and position.

NETHERLANDS.

A poor set-out of native shells not properly named, and a few shells from Madagascar.

NORWAY.

Mollusca from Tromsö, 69° 40' N. lat., and therefore far within the arctic circle. This is a good collection of fine specimens, but of a few species only, including *Fusus gracilis*, var. *glaber*, *F. islandicus*, *F. Sarsi*, *Buccinum undatum* and its varieties *parvulum* and *fragile*, *B. grænlandicum* (if not also a variety of the last) and its variety *finmarchianum*.

SPAIN.

An unsatisfactory exhibit; some specimens are wrongly named, e. g. "*Teredo navalis*" instead of *T. norvegica*.

SWEDEN.

Dr. Malm's Mollusca from the Gothenburg Museum. An old collection, and some specimens wrongly named, e. g. *Mya Binghami*, var. *elongata*, which is placed with *Saxicava rugosa* as the young of that species. There are also a few shells from Bohuslän, which were contributed by Mr. Oscar Dickson, including *Stilifer Turtoni* of Broderip and Sowerby, *Pleurophyllidia Loveni* of Bergh, and *Loligo Forbesi* of Steenstrup. But the most important collection of Mollusca in the Exhibition was furnished by Prof. Nordenskjöld, having been dredged in the icy or Siberian Sea during his celebrated voyage in the 'Vega.' All of these are truly arctic species; and it may be desirable to mention a few of them with the recorded depths:—CONCHIFERA: *Amussium Hoskynsi*, Forbes, 75 fathoms, very large; *Astarte fabula*, Reeve, = *A. Warhami*, Hancock, 10 fathoms. GASTROPODA:—*Trichotropis Kröyeri*, Philippi, 55 fathoms; *T. crinifera*, Leche, 55 fathoms; *Purpura Freycineti*, Middendorff, 0-1 fathom; *Buccinum Totteni*, Stimpson, var., = *B. terræ-novæ*, Mörch, 55 fathoms; *Pleurotoma* sp. n., 55 fathoms. As Dr. Leche of Stockholm writes me word that he intends to describe the Conchifera only from

the 'Vega' expedition, I venture to propose the name *in-signis* for this grand species. I believe it is larger than any other known *Pleurotoma*, recent or fossil. It is about three inches long and an inch broad. Colour creamy under the coating of a Hydrozoon which infests all the specimens. Whorls 7-8, convex; apex turreted. Sculpture consisting of numerous spiral striæ or slight ridges, besides a rather sharp and prominent keel in the middle of each whorl. Suture distinct. Fissure or slit broad but not very deep, placed about halfway between the suture and the median keel. The infrasutural or fissural space is marked (as in other species of *Pleurotoma*) with flexuous lines of growth. Mouth irregularly oblong. Many of the specimens have a short sinus in the outer lip at the commencement of the canal, which latter is of moderate length and nearly equally wide throughout. Inner lip smooth, and polished by the continual attrition of the foot. Operculum none. There were ten living specimens in this collection. CEPHALOPODA: *Heteroteuthis tenera*, Verrill, 15 fathoms.

After all has been said we cannot be much surprised to find that this Exhibition is not a museum of natural history. The masses are as yet far from being educated in such matters, and they would simply regard a properly arranged collection of specimens which are not useful to man in the most cursory and incurious manner and without the slightest scientific interest. Perhaps it may be different in the next century.

XVII.—*On two Freshwater Sponges* (*Spongilla nitens*, Carter, and *S. Böhmii*, sp. n.) collected by Dr. R. Böhm in the River Ugalla near Lake Tanganyika. By M. HILGENDORF*.

THE fifteen dry specimens, of bright greyish-brown colour, from 5 to 15 centim. [2 to 6 inches] in diameter, and of broadly conical, hemispherical, or horizontally expanded form, closely resemble one another. Their surface is covered with short slender prominences, each separated from the neighbouring ones by interspaces larger than its own diameter and continued radially through the interior substance of the sponge. In the principal portion a framework goes from one radial cord to another; and in the meshes thus formed numerous

* Translated from a separate impression from the 'Sitzungsbericht der Gesellschaft naturforschender Freunde,' May 22, 1883, communicated by H. J. Carter, F.R.S. &c.